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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/611,447	07/06/2000	Guo-Qiang Wang	91436-265	6335
22463	7590	03/21/2005	EXAMINER MILLS, DONALD L	
SMART AND BIGGAR 438 UNIVERSITY AVENUE SUITE 1500 BOX 111 TORONTO, ON M5G2K8 CANADA			ART UNIT 2662	PAPER NUMBER

DATE MAILED: 03/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/611,447

Applicant(s)

WANG ET AL.

Examiner

Donald L. Mills

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 January 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10,16,18-20,22 and 23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10,16,18-20,22 and 23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-10, 16, 18-20, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fatehi et al. (US 6,600,583 B1), hereinafter referred to as Fatehi, in view of Jamoussi (Internet Draft, "Constraint-Based LSP Setup Using LDP").

Regarding claims 1-3, 6, 9, 10, 16, 19, 20, 22, and 23 Fatehi discloses an optical Internet router that uses optical tags to send and receive command and response messages between routers of an optical network, which comprises:

*Assigning an optical label to a channel group, said channel group using one of said fiber optic links and comprising a plurality of channels* (Referring to Figure 13, the available wavelength update message corresponds to series of channels utilizing fiber optic links. See column 8, lines 54-63;)

*Encoding said optical label so as to comprise a value field, where said value field comprises a label component and where said label component comprises an indication of whether each channel of said plurality of channels is available for use in a label switched path* (Referring to Figure 13, the available wavelength update message updates the router with

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number of wavelengths available at the router to the intended router **1304** and the ID of the available wavelengths **1305-1307**. See column 8, lines 54-63.)

Fatehi does not disclose *encoding said optical label to comprise a type field, a length field and a value field.*

Jamoussi teaches a method of constraint based routing (CR) in MPLS, which defines TLV encoding that includes a type, length, and value field (See page 15, section 4.3.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the router messaging system of Fatehi utilizing the MPLS method of Jamoussi. One of ordinary skill in the art at the time of the invention would have been motivated to do so in order to optically tag and read messages without sacrificing transmission efficiency and throughput capacity in heterogeneous systems. An added benefit of doing so would allow one to comply with the well-known standard of MPLS.

Regarding claim 4 as explained in the rejection statement of claim 3, Fatehi and Jamoussi teach all of the limitations of claim 3 (parent claim).

Fatehi does not disclose *wherein current availability of bandwidth on each of said plurality of channels is represented by a single bit.*

Fatehi teaches the available wavelength update message updates the router with the number of wavelengths available at the router to the intended router **1304** and the ID of the available wavelengths **1305-1307** (See column 8, lines 54-63.)

It would have been obvious to one of ordinary skill at the time of the invention to implement the ID of available wavelength of Fatehi as a single bit. One of ordinary skill in the

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art at the time of the invention would have been motivated to do so in order to reduce system complexity when only two wavelengths are utilized.

Regarding claim 5 as explained in the rejection statement of claim 3, Fatehi and Jamoussi teach all of the limitations of claim 3 (parent claim).

Fatehi does not disclose *wherein a bit value of zero for said single bit indicates currently available bandwidth on a given one said plurality of channels.*

Fatehi teaches the available wavelength update message updates the router with the number of wavelengths available at the router to the intended router 1304 and the ID of the available wavelengths 1305-1307 (See column 8, lines 54-63.)

It would have been obvious to one of ordinary skill at the time of the invention to implement the ID of available wavelength of Fatehi as a single bit, thereby having an ID value of zero representing a first available channel. One of ordinary skill in the art at the time of the invention would have been motivated to do so in order to reduce system complexity when only two wavelengths are utilized.

Regarding claim 7, the primary reference further teaches *wherein said attribute comprises an indication of a service type of said second network* (Referring to Figure 13, number of wavelengths available at the router to the intended router 1304.)

Regarding claim 8, the primary reference further teaches *wherein said attribute comprises an indication of a control protocol of said second network* (Referring to Figure 13, address of intended router to receive this message 1303.)

### ***Response to Arguments***

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3. Applicant's arguments with respect to claims 1-10, 16, 18-20, 22 and 23 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald L Mills whose telephone number is 571-272-3094. The examiner can normally be reached on 8:00 AM to 4:30 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Donald L Mills



March 10, 2005



**JOHN PEZZLO**  
**PRIMARY EXAMINER**